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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,857	04/16/2004	Pekka Rytty	187-77	8203
23869	7590	11/14/2005	EXAMINER	
HOFFMANN & BARON, LLP			GEDEON, BRIAN T	
6900 JERICO TURNPIKE			ART UNIT	
SYOSSET, NY 11791			PAPER NUMBER	

3766

DATE MAILED: 11/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

C

Office Action Summary	Application No. 10/825,857	Applicant(s) RYTKY, PEKKA	
	Examiner Brian T. Gedeon	Art Unit 3766	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-10 is/are rejected.
- 7) ☒ Claim(s) 5 and 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/3/04 and 8/16/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 9 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Wolfe (US Patent no. 4,120,294).

In regards to claim 1, Wolfe discloses a heart rate indicator in the form of a wristband having a strap 11 and a casing 12. The strap (attaching means) has electrically conductive inner and out layers 13 and 14, col 2 lines 62-66. When worn on the wrist, only the conductive inner layer 13 is in contact with the skin of the wrist, col 4 lines 66-68. The conductive inner layer serves as one electrode of the system, the other electrode of the system being the outer layer 14, col 3 lines 4-6. The casing 20 contains 12 contains all the circuit elements and display means which serve as the measuring unit, col 2 lines 29-31. The electrical circuitry for the heart rate measurement and indicator device is not unlike those well known in the art, col 3 lines 23-34. The electrically conductive outer structure 14 extends at least to opposite sides of the hand to which the device is attached; the electrically conductive outer structure 14 extends

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the entire surface of the outer side of the strap 10. The outer layer 14 and the casing 12 are in electrical contact with each other, col 2 line 69 – col 3 lines 1-2, which is recognized by the Examiner to be an equivalent to the wire connection of “at least the one electrode” to the “measuring unit.”

In regards to claims 2 and 3, the outer surface of the strap 10 is comprised entirely of an electrically conductive outer layer 14 and serves as one electrode of the system completes the circuit with the casing and inner conductive layer 13 when the wearer touches the outer layer 14 with the fingers of the other hand and the electrical signals of the heart are picked up and processed, col 2 lines 18-26. The fingers of the other hand can touch the outer electrode at least from opposite directions in relation to the hand to which the device is worn.

In regards to claim 9, the method of manufacture seems apparent from the disclosed apparatus. Wolfe discloses a heart rate indicator in the form of a wristband having a strap 11 and a casing 12. The strap (attaching means) has been provided with electrically conductive inner and out layers 13 and 14, col 2 lines 62-66. When worn on the wrist, only the conductive inner layer 13 is in contact with the skin of the wrist, col 4 lines 66-68. The conductive inner layer serves as one electrode of the system, the other electrode of the system being the outer layer 14, col 3 lines 4-6. The casing 20 contains 12 contains all the circuit elements and display means which serve as the measuring unit, col 2 lines 29-31. The electrical circuitry for the heart rate measurement and indicator device is not unlike those well known in the art, col 3 lines 23-34. The electrically conductive outer structure 14 extends at least to opposite sides of the hand

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to which the device is attached; the electrically conductive outer structure 14 extends the entire surface of the outer side of the strap 10. The outer layer 14 and the casing 12 are in electrical contact with each other, col 2 line 69 – col 3 lines 1-2, which is recognized by the Examiner to be an equivalent to the wire connection of “at least the one electrode” to the “measuring unit.”

In regards to claim 10, the method of use of the device is believed to be apparent from the above components. The wearer places the wristband device on one wrist. The electrically conductive inner surface 13 of the device is in immediate contact with the skin of the user's wrist, and is positioned on one side of the electrical axis of the heart, col 4 lines 10-13. Completion of the circuit occurs when the electrically conductive outer surface 14 (i.e. outer electrode) is touched with a finger or fingers of the user's other hand. The circuitry of the casing mentioned in claim 1 computes the heart rate of the user. The user can touch the measurement device on opposite sides of the hand to which the device is attached, since the outer electrode is entirely exposed on the outer surface 14, and contact could be made at any point. The outer layer 14 is in electrical contact with the casing 14 which is recognized to be equivalent to the wire connection of the “at least one electrode” to the “measuring unit.”

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wolfe (US Patent no. 4,120,294) in view of James (US Patent no. 3,870,034).

Wolfe substantially describes the invention as claimed except the "electrically conductive outer structure" comprising at least two electrodes in electrical contact by means of a wire. James discloses a wrist-worn galvanic skin response monitoring instrument comprised of a pair of electrodes mounted in fixed spaced relation to the outer face of the of a casing and adapted to be touched by two different fingers of the user, col 4 lines 43-46. The electrodes are connected to a power source mounted in the casing, col 4 lines 49-50. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to electrically connect any number of electrodes placed around the wristband to use any art recognized equivalent means to order to establish good potential differences between electrodes and signal communication to the measurement circuitry located in the casing.

4. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolfe (US Patent no. 4,120,294) in view of Raddi et al. (US Patent no. 3,826,246).

In regards to claims 7 and 8, Wolfe sufficiently describes the claimed invention except does not describe the electrically conductive materials the outer layer 14 is composed of. Raddi et al. discloses a device for sensing physiological signals in which electrodes 18 and 20 are in contact with the skin, col 2 lines 47-48, which can be worn on the wrist, col 6 line 19. These electrodes are described as metallic, but if desired they may be completely or partially constructed of any suitable electrically conductive

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material, for example electrically conductive plastic, col 6 lines 52-57. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made construct a physiological signal sensing electrode from an electrically conductive medium such as metal or plastic since it was held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as an electrode.

Allowable Subject Matter

5. Claims 5 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sasaki et al. (US Patent no. 4,091,610) discloses an electronic wristwatch with an electrode that when touched activates the device. Adams (US Patent no. 4,295,472) discloses a wristwatch heart rate monitor with metal contacts members that are adapted to have a thumb and finger of the other hand squeeze to activate.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian T. Gedeon whose telephone number is (571) 272 3447. The examiner can normally be reached on M-F 8:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert E. Pezzuto can be reached on (571) 272 6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Robert E Pezzuto
Supervisory Patent Examiner
Art Unit 3766

BTG